

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010552**Date Inspected:** 30-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trail Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath. Math. was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Assembly Area

Segment 1AW to 1BW

This Quality Assurance (QA) Inspector witnessed final tension verification for U-Rib to U-Rib for Segment 1AW to 1BW between Panel Point (PP) 10 and PP 10.5. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 65 RC Set# DHGM220021 and final torque required was 543 N-m.

Bolt sizes used were M22 x 80 RC Set# DHGM220012 and final torque required was 427 N-m and

Bolt sizes used were M22 x 85 RC Set# DHGM220047 and final torque required was 427 N-m.

Total 37 Nos. of U-Ribs were Inspected, Big splice plates were used at U-Rib No. 1, 9, 12, 37 and 38. Manual Torque wrench was been used for Tension Verification bearing Sr. No. XQ2-666.

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Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Longitudinal Diaphragm at PP 37 for Segment 6AE Counter Weight side. The weld joint was identified as SEG 028F-013-001 and 011 noticed welding is in progress. The welder is identified as 220067. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-Tc-U4b-F-1, WPS-B-T-2133-Tc-U4b-F-1, WPS-B-T-2233-Tc-U4b-F-1.

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Longitudinal Diaphragm at PP 37 for Segment 6AE Cross Beam side. The weld joint was identified as SEG 028D-013-001, 013, 049, 015, 016 and 011 and noticed welding is in progress. The welder is identified as 062447. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-Tc-U4b-F-1, WPS-B-T-2133-Tc-U4b-F-1, WPS-B-T-2233-Tc-U4b-F-1.

OBW 5BW to OBW 5C

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (FCAW) for Counter Weight Connecting Plate weld No. OBW5G-007. The weld was rejected at Eight (8) Locations against the ABF UT report No. B 787 UT 9611. The welding was been performed against the Repair Report No. BWR 8590 Rev. No.0. for Segment 5BW to 5CW. The welder is identified as 066258. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G(4F)-FCM-Repair-1.

Segment 5CE to 6AE

This QA Inspector observed ZPMC personnel performing Heat Straightening for Longitudinal Diaphragm to Longitudinal Diaphragm against Heat Straightening Report HSR (1) B-7875 Rev. 0 Dated Nov 08, 2009 for Cross Beam and Bike Path side. The Longitudinal Diaphragm was distorted due to welding during fabrication.

Segment 6AE to 6BE

This QA Inspector observed ZPMC personnel performing Heat Straightening for Longitudinal Diaphragm to Longitudinal Diaphragm against Heat Straightening Report HSR (1) B-7928 Rev. 0 Dated Nov 23, 2009 for Cross Beam. The Longitudinal Diaphragm was distorted due to welding during fabrication.

Segment 6AE

This QA Inspector observed ZPMC personnel performing cleaning for Bottom Panel T-Ribs to Floor Beam Connecting Clips faying surface for Installing Bolt ASTM A 325 Grade.

Segment 6CE

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This QA Inspector observed ZPMC personnel performing grinding for Bottom Panel T-Rib Hold back area for facilitating the welding.

Segment 6BE to 6CE

This QA Inspector observed ZPMC personnel performing Fit-up for Segment 6BE to Segment 6CE.

Segment 6AE

This QA Inspector observed ZPMC personnel performing Installation of Suspender Bracket.

CB4

This QA Inspector observed ZPMC personnel performing Welding by Shielded Metal Arc Welding (SMAW) for Visual Discontinuities marked by ZPMC CWI at CB4 to FL3 stiffener hold back areas at PP 34 for Segment 5BW.

Segment 5CW to 6AW

This QA Inspector observed ZPMC personnel performing T-Rib to T-Rib alignment for Field Splice Segment 5CW to 6AW between PP 36 and PP 37. Wrote the Punch list as during the course of action the T-Rib flange were distorted to 13mm due to manual Jacking and lateral misalignment was 12mm. The T-Ribs which was distorted were identified as 2nd, 3rd, 5th, 6th and 10th.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath
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Quality Assurance Inspector

Reviewed By:	Miller,Mark
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QA Reviewer
